

This article was downloaded by: [University of Central Florida]

On: 04 February 2015, At: 12:50

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



The Journal of Continuing Higher Education

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/ujch20>

Assessment Centers and Their Derivatives

Douglas W. Bray^a & William C. Byham^a

^a Development Dimensions International

Published online: 04 Oct 2011.

To cite this article: Douglas W. Bray & William C. Byham (1991) Assessment Centers and Their Derivatives, The Journal of Continuing Higher Education, 39:1, 8-11, DOI: [10.1080/07377366.1991.10400801](https://doi.org/10.1080/07377366.1991.10400801)

To link to this article: <http://dx.doi.org/10.1080/07377366.1991.10400801>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

Assessment Centers and Their Derivatives

by
Douglas W. Bray
William C. Byham

In the more than thirty years since the first management assessment center was devised and developed at AT&T, the method has been adopted by thousands of organizations, and it is estimated that at least two million people have been assessed. Assessment centers have been used for a variety of professions and occupations in addition to that of manager. Assessment center methodology has also developed over the years as changing organizational structures and responsibilities have added to the characteristics to be evaluated.

Although there are many variations on the assessment center theme, there is an essential core. Multiple techniques must be used, and there must be multiple evaluators. Although tests and interviews may be used, evaluations must be based in major part on participant performance in behavioral simulations. These and other requirements were adopted at the Third International Congress on the assessment center method in 1975 and revised at the Seventeenth Congress in 1989. The process does not need to be done at a "center". This term originated because the World War II OSS assessments were conducted at central locations, and it has usually been appropriate since most organizations have had "centers", even if they were only space in a hotel.

Origins of the Management Assessment Center

The original AT&T center was designed by the senior author in 1956 as a research tool in the Bell System's longitudinal Management Progress Study. Participants, in groups of twelve, spent three days together undergoing interviews, completing objective as well as projective tests, and taking part in three major behavioral simulations. Most of the assessors were psychologists or related professionals. The ratio of assessors to participants was high; eight assessors worked a week to evaluate each group of twelve. (A detailed description of these assessment centers may be found in Howard and Bray, 1988.)

Several significant changes took place when assessment centers went operational in the Bell System telephone companies, beginning in 1958. Assessee time was reduced to two days, and the assessors were managers with various backgrounds rather than psychologists. Personality tests were eliminated although a mental ability test was retained. Heavy reliance was placed on the simulations. These early operational centers focused on evaluating the management potential of non-management employees.

During the 1960s, assessment centers spread slowly to a number of large organizations outside of the telephone companies. Nearly all of them adopted the Bell model, and most used them to evaluate lower-level managers or candidates for such jobs. The big growth spurt took place in the 1970s heralded by Byham's article in *Harvard Business Review* (1970). An earlier impediment to the adoption of the method, a lack of assessment center materials and know-how, was eliminated by the establishment of consulting firms which could provide them.

The validity of the method in predicting managerial success has been well documented in the literature ever since the 1960s. A summary can be found in Thornton and Byham's *Assessment Centers and Managerial Performance* (1982). More recently, the results of a validity meta-analysis have been published (Gaugler, Rosenthal, Thornton, and Bentson, 1987).

Although the early applications of the management assessment center were oriented toward selection, and that use is still much in evidence, management development later became an aim of the activity. The feedback of assessment evaluations to participants was seen as a spur to self-development. The use of the findings by supervisors was expected to promote more targeted coaching. Human resources departments could use the information to provide more formal education and training directed to managers' specific strengths and weaknesses.

An assessment center is organized around a set of dimensions matching the requirements of the target job. These dimensions, in turn, determine the exercises to be used. This is particularly germane to the behavioral simulations, which are designed to parallel the job without duplicating it. This latter restriction is to eliminate specific job knowledge, in which candidates might differ, so as to focus on generic job skills.

Later Applications

The flexibility of the assessment center method allows it to be applied to a great variety of occupations, as it has been, and the end is not in sight. In the late 1960s, the first assessment center not directed at management ability was designed and applied at AT&T. The aim was to assess the potential for sales work of those seeking employment as communications consultants. Such centers spread widely in the Bell System and beyond and became the stimulus for adapting the approach to a wide variety of sales jobs.

The National Association of Secondary School Principals (NASSP) initiated an assessment center project in 1975 directed at identifying candidates for school principalships. Six years later there were twenty such centers. In 1982 the major focus of the effort was redirected to the use of assessment as

a base for the development of administrators through coaching, training, education, and experience. An ambitious program was launched. By 1988, NASSP oversaw fifty operating centers, had trained over 3,000 assessors, and assessed 6,000 potential administrators (Hersey, 1989).

An early and different application to education took place at Alverno College in Milwaukee. Starting from an agreement on competencies to be achieved by undergraduate students, a wide variety of simulations was developed to evaluate these competencies. Assessments are conducted by combinations of faculty, alumnae, and community members trained to administer the exercises. Although knowledge competencies are often measured by paper-and-pencil tests, the majority of the competencies are evaluated behaviorally.

Although there are many variations on the assessment center theme, there is an essential core. Multiple techniques must be used, and there must be multiple evaluators.

More recently, attention was turned to teaching itself by a consortium of teacher preparation institutions in Pennsylvania. A two-day assessment center was built around simulations designed to elicit teaching skills and related educational activities (Millward, 1989). Although a similar center might eventually be used by school districts in selecting teachers, initial applications evaluate college sophomores preparing for teaching in order to tailor their junior and college years to their strengths and weaknesses.

Another use in education was pioneered under the auspices of the American Assembly of Collegiate Schools of Business (AACSB). Six business schools participated in a pilot project to measure the "value added" by the schools. Entering freshman and graduating seniors, as well as entering and graduating MBA students, underwent the same assessment center techniques and performance within each pair of groups compared in order to detect the effects of two years or more of education and life experience. The results were not uniformly encouraging, particularly in the area of interpersonal skills.

As a result, one of the schools in the project, the University of Pittsburgh, sponsored an experiment in which the assessment center served as the criterion. Students were assigned to various experimental groups, some receiving behavior modeling interpersonal skills training and others not. Significant gains were made by those who received such training. The point here is not, however, the effectiveness of such training but the usefulness of the assessment center in evaluating educational and training programs.

Police and fire departments across the nation have adopted the assessment center method as a selection tool. Most applications have involved promotional decisions into positions such as sergeant, lieutenant, captain, although a few are used for entry level police work. Most departments use some form of competitive paper-and-pencil examinations. The assessment center allows them to consider dimensions, such as interpersonal and community sensitivity, that are not well evaluated by tests or traditional interviewing.

The National Association of Chiefs of Police provides assessment center programs for local municipalities, and the State of New Jersey has developed an assessment methodology which can be used by police departments in any of its communities. In addition, several consulting firms have developed innovative techniques to process a large number of individuals at the same time. One organization uses responses to videotape presentations of common problems that will be faced on the job as a part of the assessment procedure.

A final example of the flexibility of the assessment center is afforded by its adaptation to the evaluation of clinical psychologists. The American Board of Professional Psychology has long issued Diplomas to those who manifest excellence in practice. Clinical psychology was selected as the practice for a pilot project because it provided the largest number of potential Diplomates. The senior author and colleagues on the Board assembled groups of Diplomates to select the dimensions along which candidates for the Diploma would be evaluated. Interview schedules, guidelines for rating work samples, and behavioral simulations were designed. Experienced ABPP examiners were trained in the new style of examination.

Procedural Changes

While the assessment center method is well accepted in terms of its validity and flexibility, the traditional form of the method is very demanding in respect to personnel time. Those assessed must be away from their work for one or two days, and those serving as assessors for three to five days for each group of assesseees. Some organizations have reduced these requirements through a number of procedural and technological changes.

One approach is to incorporate the assessment exercises into business activities. Assesseees are given the names of managers with whom they are to set up meetings during the next few weeks. The managers schedule these appointments into their daily activities. The managers put the assesseees through the same, or very similar, exercises that would be part of a formal assessment center. One might interrogate the candidate about decisions made in the in-basket, while another might ask for a presentation of findings from an analysis and planning exercise. One manager might role play a presumed subordinate while another manager observes the interaction, such as a developmental discussion, conducted by the assessee.

Although the early applications of the management assessment center were oriented toward selection, and that use is still much in evidence, management development later became an aim of the activity.

In this approach, the managers (assessors) later hold an assessor discussion just as they would at an assessment center. Thus all the key components of the method are preserved. There are multiple behavioral simulations, observed around job-related dimensions, and systematic data integration by several assessors who have made independent observations. Deformalizing the method does not reduce

The flexibility of the assessment center method allows it to be applied to a great variety of occupations, as it has been, and the end is not in sight.

assessor time, but makes serving as an assessor more acceptable because it can be fitted into other activities.

Another move toward efficiency is the automation of report writing. Organizations, such as Bell South, have used computer systems to summarize assessors' observations around dimensions. Assessors enter their observations from an exercise into a computer system that prompts assessors to give behavioral examples and to consider special areas. When all assessors have done this, the computer prints out all the observations on each dimension so that the assessors can quickly review them and decide on overall ratings. These ratings are entered and the computer prepares a final, individualized behavioral report.

A related method used by other organizations, including that of the authors, is a computer system to check assessor judgments. The assessor enters his/her behavioral observations on a dimension and his/her rating of that dimension. The computer then compares this rating with the typical rating given for such behavior. If there is a discrepancy, another assessor is asked to review the behavioral data and make a final decision.

Assessor time can be saved by substituting videotape displays for role-playing assessors although this may not be desirable in all exercises. The screen presents assessee with the person with whom they are to interact. When this person has made a statement on a topic or asked a question, the screen fades out and the question, "What would you say?" appears. In different applications, assessee may write their answers, check multiple choice responses, or even videotape their responses.

Videotape is also used to replace direct observation of assessee's behavior by the assessors. A technician records behavior in the simulations, and the tape record is forwarded to some central point along with any written exercises administered. The assessors then proceed to evaluate the behavior and make their ratings. This method allows the evaluation of candidates in various and perhaps remote locations by the same team of assessors. Candidates from different parts of the organization can be compared with each other or even with those assessed in other organizations.

Much of this videotape assessment utilizes outside professional assessors. There is, in fact, a trend toward using others rather than currently active managers as assessors even in more traditional assessment centers. In this era of flatter, down-sized organizations, staffing assessment centers with managers is often extremely difficult. Retired employees, temporary employees, and consultants are needed to fill the gap.

Some organizations are using a combination of videotaping and direct observation. For example, a large telephone company and a department of the federal government use outsiders to evaluate written work, such as the in-basket, and videotaped exercises where that is appropriate. These data are then combined with direct observations of additional behavior by the in-house assessors.

Assessment Center Method Derivatives

The momentum of the assessment center movement has carried over into other personnel evaluation activities. Although these are not assessment centers, they represent applications of the underlying methodology. They are built around the dimensions needed on the target job, and those using them are trained not only to elicit relevant behavior but to use the behavior observed to evaluate the dimensions and overall potential.

Most notable is the assessment center influence on selection interviewing. Much of the usual employment interviewing was relatively unstructured and given to hypothetical questions about possible future situations. Taking their cue from assessment center methods, behavioral interviewing programs utilize interviewers, like assessors, trained to ask questions that elicit complete examples of past behavior. Groups of dimensions are assigned to two or more interviewers. They later share data on the dimensions systematically to reach consensus ratings. The result is a profile of strengths and weaknesses and an overall evaluation of potential.

Such interviewing may be supplemented by mini-simulations administered by the interviewer. This is particularly useful when the candidate has had little relevant work experience, such as a new college graduate, or is being evaluated for a position markedly different from any held before. Mini-simulations are brief and focused and can be introduced by the interviewer as part of the interviewing process.

While the assessment center method is well accepted in terms of its validity and flexibility, the traditional form of the method is very demanding in respect to personnel time. . . . One approach is to incorporate the assessment exercises into business activities.

Assessment methodology has also added to the evaluation of on-the-job performance. Appraisal plans have been built around dimensions and managers trained, similarly to assessors, to observe behavior around defined dimensions and to integrate the data effectively.

The greatest growth of assessment technology starting in the late 1980s has been at the employee level, reflecting dramatic changes in the jobs and responsibilities of front-line workers. These changes are most clearly seen in manufacturing but are true for many occupations.

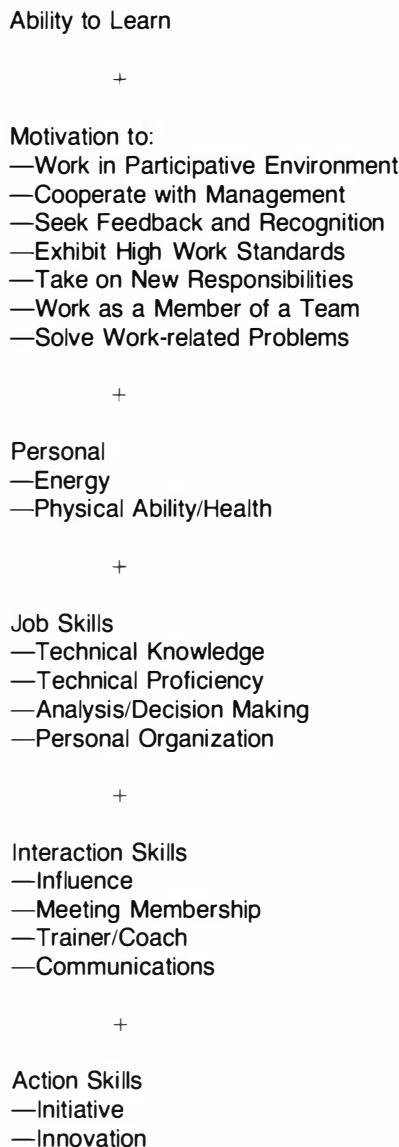
The manufacturing worker of the 1990s will be part of a self-directing work team. This will be a mini-organization within the larger organization with well-defined key results areas and goals. The team will be evaluated on the achievement of these goals. Team members will be able to do all the jobs of the team (and frequently those of neighboring teams), and they will move from job to job frequently.

The team will be responsible for planning its own work, scheduling vacations and other absences, dealing with team member performance issues, and selecting team members and

team leaders. Most importantly, team members will be responsible for quality and productivity. This will require technical skills, problem identification, and problem solving.

Figure 1 shows a list of desirable characteristics (dimensions) for a team member in a typical manufacturing operation. As can be seen, these dimensions are quite different from those that would be appropriate for a traditional manufacturing employee. In order to evaluate the new dimensions companies have adapted methodologies previously used for supervisory selection, particularly the assessment center method.

Figure 1



A variety of assessment exercises have been developed to elicit behavior relevant to the new demands. For example, a group of job applicants who have passed earlier stages of the employment process are trained in a simple manufacturing task. They then work together for an hour manufacturing a

product. Following this, they are asked to discuss the process they have been using and come up with ideas for improving it.

Behavioral simulations are rarely the sole method of determining employability. As in the traditional assessment center, exercises are combined with targeted interviews and paper-and-pencil tests. One valuable by-product of the team simulations is that they act as a realistic job preview. Some applicants find that they are not attracted to such a work setting.

The momentum of the assessment center movement has carried over into other personnel evaluation activities. Although these are not assessment centers, they represent applications of the underlying methodology.

Entry level employment assessment has been particularly appropriate in new plant start-up situations. In these instances, the culture of the new organization, such as employee empowerment, can be projected in advance and promising employees for such a climate sought. Even when there is not an opportunity for a fresh start but a company is seeking to change parts of its current operations in the direction of empowerment, assessment methodology can be useful. Members of the current work force who would be most suited to the changed work setting can be identified.

The staffing of assessment centers in plant start-up situations is somewhat unusual. Because the plant is new and management structure is lean in any case, it is almost impossible to get assessors from the ranks of management. Consultants are used, and several states have developed a cadre of trained assessors through state employment offices.

The changing nature of entry-level jobs is changing the objectives of employee selection. The aim used to be to select the square peg for the square hole. It was expected that people would learn one well defined job and work at it indefinitely. Aptitudes and motivations supporting flexibility and teamwork were usually irrelevant. Now a much wider range of employee characteristics must be considered, for which assessment center methodology is well suited.

References

- 1 Byham, W. C. "Assessment Centers for Spotting Future Managers." *Harvard Business Review*, 48(4), pp. 150-160, plus appendix, 1970.
- 2 Gaugler, B. G., D. B. Rosenthal, G. C. Thornton, III, and C. Bentson. "Meta-analysis of Assessment Center Validity." *Journal of Applied Psychology*, 72(3), pp. 493-511, 1987.
- 3 Hersey, P. W. "Identifying and Developing Superior Principals." In J. D. Wilson, G. O. B. Thomson, R. E. Millward, and T. Keenan (Eds.), *Assessment for Teacher Development*. London: Falmer Press, 1989.
- 4 Howard, A. and D. W. Bray. *Managerial Lives in Transition: Advancing Age and Changing Times*. New York: Guilford Press, 1988.
- 5 Millward, R. E. "Pre-teacher Assessment: Development, Implementation, and Follow-up." In J. D. Wilson, G. O. B. Thomson, R. E. Millward, and T. Keenan (Eds.), *Assessment for Teacher Development*. London: Falmer Press, 1989.
- 6 Thornton, G. C. III and W. C. Byham. *Assessment Centers and Managerial Performance*. New York: Academic Press, 1982.